IN THE CLAIMS:

1. (previously Amended) A fiberoptic system comprising:

a central office; and

at least one downstream station connected to said central office by a bi-directional fiber;

said central office comprising a TX unit, an RX unit and a CW laser; and

each said downstream station comprising an RX unit and a tunable filter, said tunable filter being placed between the downstream station's RX unit and said central office to selectively reflect a signal received from the CW laser on the bi-directional fiber back to the central office on the bi-directional fiber.

2. (original) A fiberoptic system according to claim 1 wherein said tunable filter is configured so that during downstream transmission, said tunable filter is tuned to the wavelength of the central office's TX unit so that the signal transmitted by the central office will pass through said tunable filter and be received by the station's RX unit.

3. (previously amended) A fiberoptic system according to claim 1 wherein said tunable filter is configured so that during upstream transmission, the station's tunable filter is selectively tuned to a wavelength different than the wavelength of the central office's CW laser, so that the station's tunable filter will selectively reflect light from the CW laser back to the central office, with said tunable filter being selectively tuned so as to modulate the light being reflected back to the central office, whereby to effectively create an upstream transmission from the downstream station to the central office.

4. (original) A fiberoptic system according to claim 1 wherein said CW laser is a tunable laser, and each said downstream station is assigned a different wavelength within the tuning range of said tunable laser.

5. (previously amended) A fiberoptic system comprising:

a central office; and

at least one downstream station connected to said central office by a bi-directional fiber;

said central office comprising means for transmitting a light signal on the bi-directional fiber, means for receiving a light signal on the bi-directional fiber, and a CW laser; and

each said downstream station comprising means for receiving a light signal and a tunable filter, said tunable filter being placed between the downstream station's means for receiving a light signal and said central office, the tunable filter for selectively reflecting a signal received from the central office on the bi-directional fiber back to the central office on the bi-directional fiber.

6. (previously amended) A method for communicating between a central office and a downstream station coupled to the central office by a bi-directional fiber, said method comprising:

providing, at said central office, a TX unit, an RX unit and a CW laser, and providing, at said downstream station, an RX unit and a tunable filter, said tunable filter being placed between the downstream station's RX unit and said central office;

during downstream transmission, tuning said tunable filter to the wavelength of the central office's TX unit so that a signal transmitted by the central office on the bi-directional fiber will pass through said tunable filter and be received by the station's RX unit, and during upstream transmission, selectively tuning the station's tunable filter to a wavelength different than the wavelength of the central office's CW laser, so that the station's tunable filter will selectively reflect light received from the CW laser on the bi-directional fiber back to the central office on the bi-directional fiber, with said tunable filter being selectively tuned so as to modulate the light being reflected back to the central office, whereby to effectively create an upstream transmission from the downstream station to the central office.